

respectively. *R. maximum* may dominate the shrub and understory layers of mesic forests on rocky ridges with a thin solum. Mesic Mixed Hardwoods Forests and Dry-Mesic Oak-Hickory Forests both may intergrade into Heath communities on granitic ridges or high knolls. Heath communities in the Piedmont are usually considered as mountain disjuncts, although the appearance of both *Rhododendron* and *Kalmia* within this tri-county corridor is not unusual. Generally the sites are too small to deserve separate recognition, however one instance of Piedmont/ Coastal Plain Heath Bluff (Y04) is listed in this report. Heath Bluffs typically are dominated by *Rhododendron maximum* on rocky sites with a northern exposure and/or protected slope positions. The open canopy is often a mix between mesic species such as Beech (*Fagus grandifolia*) and subxeric species such as Chestnut Oak (*Q. prinus*) and this mix is probably due to effects of microclimate. There are usually exposed rock surfaces with pockets of soil and accumulated leaf litter and organic debris. The herbaceous cover is sparse but usually also dominated by species found in ericaceous communities such as Galax (*Galax urceolata*). Other shrubs such as Buffalo Nut (*Pyrularia pubera*), and many species of *Vaccinium* are abundant.

Kalmia latifolia dominates heath bluffs on drier or more exposed sites. The canopy is dominated by *Quercus prinus* in association with more xeric species such as Virginia or Black Pine (*Pinus virginiana*), Shortleaf Pine (*P. echinata*) and occasional Post Oak (*Quercus stellata*). The subcanopy is often pure Sourwood (*Oxydendron arboreum*). The presence of large *Pinus spp.* may indicate an edaphic climax. Heath Bluffs dominated by *Rhododendron maximum* may grade into areas dominated or mixed with *Kalmia latifolia* on ridge crests.

As mentioned earlier, communities which are naturally treeless are often visually the most striking. Cliffs formed by the cutting action of the Yadkin or smaller tributaries finish out the list of terrestrial communities. Within the corridor almost all cliffs are composed of granite or granite gneiss. These cliffs are listed as Piedmont/Coastal Plain Acidic Cliffs and are usually barren over most of the exposed surface. Cliffs that support outcrop species whose presence is often attributed to basic rock are often simply wet acidic rocks where small organic pockets have formed from transported detritus. Mafic rock is softer and less resistant to weathering processes and is unlikely to form cliffs and thus the term mafic outcrops, may be more descriptive in this application. Very few outcrops exist where the mafic (basic pH) status can be ascertained. Where suspected mafic outcrops do occur, species restricted to or indicative of high base saturation such as Columbine (*Aquilegia canadensis*) and Walking Fern (*Asplenium rhizophyllum*) should be noted. Also, if these outcrops are representative of the local geology, then soils formed from them should support species over a broad area indicating a basic condition. Therefore, the best indicator of true mafic outcrops is the species composition, diversity and abundance on the slopes and terraces.

Significant Species

Several plant species deserve recognition as significant elements of the tri-county Yadkin River Corridor. Species taxonomy follows Radford et al (1968) and Weakley (1990). A few species are already recognized in the Natural Heritage List of the Rare Plant Species of North Carolina (Weakley 1990), and the local listing is followed by the Natural Heritage Program designation. The following list is not an attempt to replace or somehow update the Natural Heritage List. The purpose of this list is to recognize what I and other local botanists would deem as significant or locally rare plant species. This list utilized data found primarily in my own and other local botanists' field notebooks. Secondly, distribution maps of species in the Manual of the Vascular Flora of the Carolinas (Radford et al 1968) were updated as much as possible from herbarium records. The Corridor List (Table 4) utilizes five categories which are intended to give the reader some indication of abundance. The significance categories for Corridor Regional and Study Corridor overlap,